

## 03050104-060

### (Twentyfive Mile Creek)

### General Description

Watershed 03050104-060 is located in Richland, Kershaw, and Fairfield Counties and consists primarily of *Twentyfive Mile Creek* and its tributaries. The watershed occupies 79,733 acres of the Sandhills and Upper Coastal Plain regions of South Carolina. The predominant soil types consist of an association of the Lakeland-Wagram-Goldston-Alpin-Tatum series. The erodibility of the soil (K) averages 0.24 and the slope of the terrain averages 10%, with a range of 0-45%. Land use/land cover in the watershed includes: 82.0% forested land, 9.0% agricultural land, 2.2% scrub/shrub land, 5.8% urban land, 0.5% water, 0.3% forested wetland (swamp), and 0.2% barren land.

Twentyfive Mile Creek originates near the Town of Blythewood and accepts drainage from Simmons Creek, Ben Hood Branch, Round Top Branch, Rice Creek (Lake Columbia), Sandy Branch (Bridge Creek, Reedy Branch, Tuppler Branch), Rocky Branch, Flat Branch, and Bear Creek (Donnington Branch). Further downstream, Big Branch enters Twentyfive Mile Creek followed by Yankee Branch, Jim Branch (Spring Branch), Briar Branch, Dodge Branch, Horsepen Creek (Wolfpit Branch), Bell Branch (Rock Branch), Cook Run, Flat Branch, and Beaverdam Branch before draining into the Wateree River. There are a total of 200.3 stream miles and 508.1 acres of lake waters in this watershed, all classified FW.

### Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
CW-229	P/W	FW	BEAR CREEK AT S-40-82
CW-080	S/INT/BIO	FW	TWENTYFIVE MILE CREEK AT S-28-05 3.7 MI W OF CAMDEN
RS-02485	RS02	FW	COOK RUN AT S-28-210 FROM SC 34

***Bear Creek (CW-229)*** - Aquatic life uses are partially supported due to dissolved oxygen excursions, which are compounded by a significant decreasing trend in dissolved oxygen concentration. There is a significant increasing trend in pH. A significant decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are not supported due to fecal coliform bacteria excursions.

***Twentyfive Mile Creek (CW-080)*** - Aquatic life uses are partially supported based on macroinvertebrate community data. There is a significant increasing trend in pH. Significant decreasing trends in five-day biochemical oxygen demand, turbidity, and total nitrogen concentration suggest improving conditions for these parameters. Recreational uses are partially supported due to fecal coliform bacteria excursions.

***Cook Run (RS-02485)*** - Aquatic life and recreational uses are fully supported.

**Groundwater Quality**

<u>Well #</u>	<u>Class</u>	<u>Aquifer</u>	<u>Location</u>
AMB-036	GB	MIDDENDORF	TOWN OF ELGIN

**NPDES Program****Active NPDES Facilities****RECEIVING STREAM****FACILITY NAME****PERMITTED FLOW @ PIPE (MGD)****NPDES#****TYPE****COMMENT**

BEAR CREEK TRIBUTARY  
 KENNECOTT/ RIDGEWAY GOLD MINE  
 PIPE #: 003 FLOW: M/R

SC0041378  
 MINOR INDUSTRIAL

**Nonpoint Source Management Program****Land Disposal Activities****Landfill Facilities****LANDFILL NAME****FACILITY TYPE****PERMIT #****STATUS**

EI DUPONT  
 INDUSTRIAL

283316-1601 (IWP-075, IWP-175,  
 ACTIVE IWP-083)

KERSHAW COUNTY LUGOF/ELGIN  
 MUNICIPAL

DWP-917, DWP-008  
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BF GOODRICH (THERMOID)  
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 CLOSED

GULLEDGE COMPOSTING SITE  
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282443-3001  
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TRAPP LCD & YARDTRASH LANDFILL  
 -----

402462-1701  
 CLOSED

**Land Application Sites****LAND APPLICATION****FACILITY NAME****PERMIT #****TYPE**

LAGOON  
 HOLOX, LTD./BLYTHWOOD

ND0069582  
 INDUSTRIAL

**Mining Activities****MINING COMPANY****MINE NAME****PERMIT #****MINERAL**

KENNECOTT/RIDGEWAY MINING CO.  
 RIDGEWAY MINE

0724-39  
 GOLD ORE

EASTERN LAND & TIMBER INDUSTRIAL PARK MINE	0592-55 SAND
CAROLINA CERAMICS, INC. MOBLEY ROAD MINE	0403-79 SHALE
L. DEAN CONSTRUCTION CO., INC. LANGFORD	1417-79 SAND

## Growth Potential

There is a high potential for continued (rapid) residential, commercial, and industrial growth in this watershed, which contains portions of the Towns of Blythewood, Elgin, and Lugoff. There is an emphasis of growth along the U.S. Hwy 1 corridor between the Cities of Columbia and Camden. Sewer is provided to this area through a regional system located in Kershaw County.

## Watershed Protection and Restoration

### *Total Maximum Daily Loads (TMDLs)*

A TMDL was developed by SCDHEC and approved by EPA for *Twentyfive Mile Creek* water quality monitoring site CW-080 to determine the maximum amount of fecal coliform bacteria it can receive from nonpoint sources and still meet water quality standards. The primary sources of fecal coliform to the stream were determined to be failed septic systems, cattle-in-stream, and runoff from pastures and developed land. The TMDL states that a 70% reduction in fecal coliform loading from these sources is necessary for the stream to meet the recreational use standard. For more detailed information on TMDLs, please visit the SCDHEC's Bureau of Water homepage at <http://www.scdhec.gov/water> and click on "Watersheds and TMDLs" and then "TMDL Program".